10-03-06

AF/JPW

HEWLETT-PACKARD COMPANY
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PATENT APPLICATION

ATTORNEY DOCKET NO. 10016145-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	Eric A. Anderson	Confirmation No.:	2067
Application No.:	10/015,015	Examiner:	K. H. Shin
Filing Date:	December 11, 2001	Group Art Unit:	2143

Title: TECHNIQUE FOR REDUCING NETWORK BANDWIDTH FOR DELIVERY OF DYNAMIC AND MIXED CONTENT

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 9/18/2006.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month $120	☐ 2nd Month $450	☐ 3rd Month $1020	☐ 4th Month $1590

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of $ 500 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage, as Express Mail Label No. EV 568241051US in an envelope addressed to: MS Appeal Brief - Patents, Commissioner for Patents, Alexandria, VA 22313-1450.

Date of Deposit: October 2, 2006
Typed Name: Gail L. Miller
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Respectfully submitted,

Eric A. Anderson

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Docket No.: 10016145-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Eric A. Anderson

Application No.: 10/015,015 | Confirmation No.: 2067

Filed: December 11, 2001 | Art Unit: 2143

For: TECHNIQUE FOR REDUCING NETWORK BANDWIDTH FOR DELIVERY OF DYNAMIC AND MIXED CONTENT | Examiner: K. H. Shin

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on September 18, 2006, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I.	Real Party In Interest
II	Related Appeals and Interferences
III.	Status of Claims
IV.	Status of Amendments
V.	Summary of Claimed Subject Matter
VI.	Grounds of Rejection to be Reviewed on Appeal

VII. Argument
VIII. Claims Appendix
IX. Evidence Appendix
X. Related Proceedings Appendix

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Hewlett-Packard Development Company, L.P., a Limited Partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249, Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 37 claims pending in application.

B. Current Status of Claims

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1-37
4. Claims allowed: None
5. Claims rejected: 1-37

C. Claims On Appeal

The claims on appeal are claims 1-37

IV. STATUS OF AMENDMENTS

A Final Office Action rejecting the claims of the present application was mailed July 18, 2006. In response, Applicant did not file an Amendment After Final Rejection, but instead filed a Notice of Appeal (on September 18, 2006), which this brief supports. Accordingly, the claims on appeal are those as rejected in the Final Office Action of July 18, 2006. A complete listing of the claims is provided in the Claims Appendix hereto.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the separately argued claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. It should be noted that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

According to one claimed embodiment, such as that of independent claim 1, a method for content delivery is provided (*see e.g.*, page 2, lines 15-27 of the specification). The method comprises requesting a piece of content (e.g., block 204 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, lines 23-29 of the specification); delimiting the piece of content into one or more portions at a source (e.g., block 206 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, line 28 – page 8, line 13 of the specification); associating an identifier with a selected one of the one or more portions of the content (e.g., block 208 of FIGURE 2, and *see* page 2, lines 30-31 and page 8, line 14-17 of the specification), said identifier computed from the selected one of the one or more portions of the content (*see* page 3, lines 27-29 and page 9, lines 1-6 of the specification); sending the identifier to a destination (e.g., block 218 of FIGURE 2, and *see* page 2, lines 15-31, and page 8, lines 25-30 of the specification); and looking up the identifier at the destination (e.g., block 220 of FIGURE 2, and *see* page 2, line 31 – page 3, line 4, and page 9, lines 11-12 of the specification) and, if the identifier is found,

retrieving the associated portion of content at the destination (e.g., block 226 of FIGURE 2, and *see* page 3, lines 1-4, and page 10, lines 10-15 of the specification) and, if the identifier is not found, receiving the associated portion of content from the source (e.g., block 224 of FIGURE 2, and *see* page 3, lines 1-4, and page 9, lines 13-16 of the specification).

In certain embodiments, such as that of dependent claim 8, the source sends the identifier and waits for an indication from the destination before sending the associated portion of content (*see* page 3, lines 30-31 of the specification).

In certain embodiments, such as that of dependent claim 9, the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content (*see* page 3, line 31 – page 4, line 3 of the specification).

In certain embodiments, such as that of dependent claim 11, the piece of content includes dynamic and static content (*see* page 2, lines 15-27 and page 7, line 30 – page 8, line 7 of the specification).

In certain embodiments, such as that of dependent claim 13, said one or more portions include at least one portion containing mixed or dynamic content (*see* page 2, lines 15-27 and page 7, line 30 – page 8, line 7 of the specification).

In certain embodiments, such as that of dependent claim 17, said delimiting is performed by comparing the piece of content to another piece of content and determining which portions are common to both (*see* page 4, lines 4-9 of the specification).

In certain embodiments, such as that of dependent claim 18, said delimiting is performed based on features contained within the piece of content (*see* page 4, lines 4-9 of the specification).

In certain embodiments, such as that of dependent claim 19, said features including white or blank space to be displayed (*see* page 4, lines 4-9 of the specification).

According to another claimed embodiment, such as that of independent claim 22, an apparatus for delivery of content data comprises a source (e.g., source 114 of FIGURE 1, and *see* page 7, lines 3-5 of the specification) having a plurality stored pieces of content (e.g., content of file 300 of FIGURE 3), the source for receiving requests for content (e.g., block 204 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, lines 23-29 of the specification), delimiting the pieces of content into portions (e.g., block 206 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, line 28 – page 8, line 13 of the specification), computing identifiers from said portions of content (*see* page 3, lines 27-29 and page 9, lines 1-6 of the specification), and assigning said identifiers to the respective portions of content from which said identifiers are computed (e.g., block 208 of FIGURE 2, and *see* page 2, lines 30-31 and page 8, line 14-17 of the specification). The apparatus further comprises a destination (e.g., destination 116 of FIGURE 1, and *see* page 7, lines 5-10 of the specification) coupled to the source via a network (e.g., network 100 of FIGURE 1), the destination for providing the requests for content (e.g., block 204 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, lines 23-29 of the specification), receiving the identifiers from the source in response to the requests (e.g., block 218 of FIGURE 2, and *see* page 2, lines 15-31, and page 8, lines 25-30 of the specification) and looking up the identifiers in a look-up table at the destination (e.g., block 220 of FIGURE 2, and *see* page 2, line 31 – page 3, line 4, and page 9, lines 11-12 of the specification), and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table (e.g., block 226 of FIGURE 2, and *see* page 3, lines 1-4, and page 10, lines 10-15 of the specification) and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network (e.g., block 224 of FIGURE 2, and *see* page 3, lines 1-4, and page 9, lines 13-16 of the specification).

In certain embodiments, such as that of dependent claim 27, the source sends the identifier and waits for an indication from the destination before sending the associated portion of content (*see* page 3, lines 30-31 of the specification).

In certain embodiments, such as that of dependent claim 28, the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content (*see* page 3, line 31 – page 4, line 3 of the specification).

In certain embodiments, such as that of dependent claim 29, the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content (*see* page 2, lines 15-27 and page 7, line 30 – page 8, line 7 of the specification).

In certain embodiments, such as that of dependent claim 30, the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content to each other and determining which portions are common (*see* page 4, lines 4-9 of the specification).

In certain embodiments, such as that of dependent claim 31, the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content (*see* page 4, lines 4-9 of the specification).

According to another claimed embodiment, such as that of independent claim 32, a method for content delivery comprises requesting a piece of content (e.g., block 204 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, lines 23-29 of the specification); delimiting the piece of content into one or more portions at a source (e.g., block 206 of FIGURE 2, and *see* page 2, lines 29-30 and page 7, line 28 – page 8, line 13 of the specification); associating an identifier with a selected one of the one or more portions of the content (e.g., block 208 of FIGURE 2, and *see* page 2, lines 30-31 and page 8, line 14-17 of the specification); and determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source (*see e.g.,* blocks 210-218 of FIGURE 2).

In certain embodiments, such as that of dependent claim 33, said determining comprising looking up the identifier at the source and, if the identifier is not found at the source, the method further comprising sending the portion to the destination (*see e.g.,* blocks 210-218 of FIGURE 2.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-5, 8-22, 26-31, 36, and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,620,205 issued to Sequeira (hereinafter "*Sequeira*") in view of U.S. Patent No. 6,976,165 issued to Carpentier et al. (hereinafter "*Carpentier*") and further in view of U.S. Patent No. 6,839,680 issued to Liu et al. (hereinafter "*Liu*").

Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of U.S. Patent No. 6,834,110 issued to Marconcini et al. (hereinafter "*Marconcini*").

Claims 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of U.S. Patent No. 6,820,133 issued to Grove et al. (hereinafter "*Grove*").

Claims 32-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Liu*.

VII. ARGUMENT

Appellant respectfully traverses the outstanding rejections of the pending claims, and requests that the Board reverse the outstanding rejections in light of the remarks contained herein. The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Rejections Under 35 U.S.C. §103(a) over *Sequeira*, *Carpentier*, and *Liu*

Claims 1-5, 8-22, 26-31, 36, and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and further in view of *Liu*. Appellant respectfully traverses these rejections as discussed further below.

To establish a *prima facie* case of obviousness, three basic criteria must be met. *See* M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of the ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the applied references must teach or suggest all the claim limitations. Without conceding any other criteria, Appellant respectfully asserts that the rejection is improper as there is insufficient motivation to combine the applied references and the applied combination thereof fails to teach or suggest all the claim limitations, as discussed further below.

Applied References

Before addressing the specific claims, Appellant first briefly discusses each of the applied references for the convenience of the Board.

i. Sequeira

As is well known in the art, *Sequeira* briefly describes HTML-based web pages, *see* col. 1, lines 19-55 of *Sequeira*. *Sequeira* recognizes that web pages "are designed for displaying on PC monitors, not television sets." Col. 2, lines 9-10 of *Sequeira*. *Sequeira* explains that "displaying such a page on a television screen generally results in poor image quality and navigating around the page and accessing the hypertext links for a page designed for display on a PC is nearly impossible." Col. 2, lines 10-14 of *Sequeira*. Thus, *Sequeira* appears to be directed to techniques for partitioning a web page into bitmapped images that enables the web page content to be displayed better and more easily navigated on a television screen, *see e.g.*, col. 2, line 46 – col. 3, line 50 and col. 6, lines 21-39 of *Sequeira*.

ii. Carpentier

Carpentier is directed to an algorithm, such as the MD5 has function, that is applied to a file to produce an intrinsic unique identifier (IUI) for the file, and the file is encrypted using its IUI as the key for the encryption, *see* abstract of *Carpentier*. As mentioned at page 9, lines 5-6 of the present application, hashing algorithms such as the MD5 algorithm are well known. However, as discussed further herein, while *Carpentier* discusses use of the IUI

generated by the MD5 algorithm for encryption of a file, *Carpentier* provides no teaching or suggestion of using the IUI in any other way, such as for indexing content in a cache.

iii. Liu

Liu is directed to an internet profiling technique for consistently identifying web users across multiple web sites, servers and domains, and monitoring the activities of the web users, *see* Abstract of *Liu*. As a result, user profiles describing the users' activities on the internet can be generated, *see Id. Liu* mentions that a caching subsystem may be used for caching documents, *see* col. 54, lines 1-55 of *Liu*. As described further below, while *Liu* mentions using a cache subsystem (in a manner that is well known in the art), *Liu* provides no teaching or suggestion whatsoever of generating an identifier based on content (such as the IUI of *Capentier* or using any such identifier for indexing the content in its cache.

Independent Claim 1 and Dependent Claims 2-5, 10, 14-16, and 20-21

Independent claim 1 recites:

> A method for content delivery, comprising:
> requesting a piece of content;
> delimiting the piece of content into one or more portions at a source;
> associating an identifier with a selected one of the one or more portions of the content, said identifier computed from the selected one of the one or more portions of the content;
> sending the identifier to a destination; and
> looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source. (Emphasis added).

1. Applied Combination Fails to Teach or Suggest All Elements of Claim 1

The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest all the above elements of claim 1. For instance, the combination fails to teach or suggest associating an identifier with a selected one of the one or more portions of the content where the identifier is computed from the selected one of the one or more portions of the content. The combination further fails to teach or suggest looking up the identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination

and, if the identifier is not found, receiving the associated portion of content from the source, as discussed further below.

The Final Office Action appears to assert that because *Sequeira* serves a web page, such web page coded in Hypertext Markup Language (HTML) is delimited into one or more portions at the server before transmission and display by a browser, *see* pages 8-9 of the Final Office Action. In this regard, the Final Office Action appears to assert that use of HTML, by its very nature, delimits a web page into one or more portions. HTML is used to create a "source" document for a web page that may contain textual content, image content, links to other documents, etc. The HTML source document contains formatting instructions that are interpretable by a browser to display the web page (e.g., to arrange the textual content, image content, etc. on the screen in a manner defined by the HTML source document).

In general, when a browser executing on a client requests a web page from a web server, the browser is first sent the HTML source document for the requested web page. The HTML source document describes, in a language understandable by the browser, the various elements (e.g., images, etc.) of the web page and an arrangement of such elements (e.g., in which order to display the images, etc. in the web page). The HTML source code includes "tags" that identify the various elements (e.g., image files, etc.) that are to be presented on the web page. The web server also sends the elements (image files, etc.) to the client, and the browser executing on the client displays the elements in the arrangement dictated by the HTML source document.

To the extent that an HTML source document is considered as delimiting content into one or more portions, it does not teach or suggest "associating an identifier with a selected one of the one or more portions of the content" where the identifier is computed from the selected one of the one or more portions of the content. To the extent that a referenced filename (e.g., image file) is included in a HTML source document, for example, such filename is not computed from the content. Indeed, the content of the file may change and the filename remains the same.

The Final Office Action appears to concede that nothing in *Sequeira* or *Liu* teaches or suggests use of an identifier that is computed from a portion of content. However, the Final Office Action asserts that *Carpentier* teaches computing such an identifier. As discussed

above, *Carpentier* teaches using an algorithm, such as MD5, to generate an intrinsic unique identifier (IUI) for a file. Thus, *Carpentier* describes that an algorithm, such as MD5, is known for creating a unique identifier of a file based on the file's contents. Indeed, the present application describes that such algorithms are known. For instance, page 9, lines 1-6 of the present application provides:

> The identifier for a content portion should be [the] same each time the identical content portion is sent by the source 114 to ensure that only one table 110 entry is formed the content. Further, the different identifiers should be assigned to different portions of content data to ensure that unintended data is not retrieved from the table 110. Known hash functions, such as MD-5 and SHA-1, have these properties.

However, use of such identifiers associated with portions of requested content to determine those portions of the content that are available locally (e.g., in cache) in a client and those portions that are not available locally, as described in the present application, is not taught or suggested in the prior art. As the Final Office Action appears to concede, neither *Sequeira* nor *Liu* teach or suggest associating an identifier associated with a selected portion of content, where the identifier is computed from the selected portion of content. Further, neither *Sequeira* nor *Liu* teach or suggest looking up such an identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source, as *Sequeira* and *Liu* simply provide no teaching of any use of such an identifier that is computed from a portion of content. While *Carpentier* teaches that a unique identifier may be computed for a file using an algorithm, such as MD5, *Carpentier* also provides no teaching or suggestion of using the computed identifier for looking up such an identifier at a destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source. Thus, the combination of the references fails to teach or suggest all elements of the claimed invention.

Thus, in view of the above, even if the *Sequeira*, *Carpentier*, and *Liu* teachings are properly combined, none of the references teaches or suggests "looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content

from the source". Again, *Carpentier* discloses an IUI that is used for encrypting a file, but makes no mention whatsoever of using the IUI in any other manner such as for looking up the identifier at a destination to determine whether to retrieve the associated content from the destination or from a source. While *Liu* mentions use of a cache subsystem, *Liu* also fails to provide any teaching or suggestion of using an identifier, such as the IUI of *Carpentier*, in determining whether content is present in the cache subsystem.

Accordingly, the applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest all elements of claim 1, as neither reference teaches or suggests using a unique identifier associated with a portion of content for performing the recited "looking up".

The Final Office Action essentially relies upon a first reference, *Sequeira*, for teaching an HTML source document that has a plurality of elements of a web page. The Final Office Action further relies upon *Liu* as teaching that a document may be searched for in a memory cache. The Final Office Action finally relies upon *Carpentier* as teaching that an algorithm, such as MD5, can be used to generate a unique identifier for a file based on the file's content. Appellant concedes that these disparate elements are known. However, as discussed above, the combination of the disparate elements fails to teach or suggest the whole of independent claim 1. That is, while HTML source documents (as those in *Sequeira*), MD5 algorithm for generating an IUI for encrypting a file (as in *Carpentier*), and cache subsystems (as in *Liu*) are well known, the combination of these known elements fails to teach or suggest the whole of claim 1. For instance, no teaching or suggestion of creating IUIs for the respective portions of an HTML source document is provided. Moreover, no teaching or suggestion of using IUIs for performing the recited "looking up" is provided.

In view of the above, claim 1 is not obvious under 35 U.S.C. § 103(a) over the combination of *Sequeira*, *Carpentier*, and *Liu* because the combination fails to teach or suggest all elements of claim 1. Therefore, Appellant respectfully requests that the Board overturn the rejection of claim 1.

Claims 2-5, 10, 14-16, and 20-21 each depend from independent claim 1, and are thus likewise believed to be allowable at least based on their dependency from claim 1 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claims 2-5, 10, 14-16, and 20-21 also be overturned.

2. Lack of Motivation to Combine the References in the Manner Applied

Further, the mere fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness, *see* M.P.E.P. § 2143.01. Rather, it is well settled that the prior art must suggest the desirability of the claimed invention, *see* M.P.E.P. § 2143.01. "There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination" and "[t]hat knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d 1443, 1447, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992). It is insufficient to prove that at the time of the claimed invention, the separate elements of the device were present in the known art. Rather, there must have been some explicit teaching or suggestion in the art to motivate one of even ordinary skill to combine such elements so as to create the same invention. *See Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957, 43 U.S.P.Q.2d 1294 (Fed. Cir. 1997).

Combination of *Sequeira* and *Liu*

First, no motivation exists for combining the teachings of *Sequeira* and *Liu*. These references are non-analogous art that are each attempting to solve a different problem. On one hand, *Sequeira* is concerned with receiving web pages and displaying such web pages on a display, such as a television screen. *Sequeira* explains at col. 2, lines 9-14:

> Web pages are designed for displaying on PC monitors, not television sets. Thus, displaying such a page on a television screen generally results in poor image quality and navigating around the page and accessing the hypertext links for a page designed for display on a PC is nearly impossible.

Further, *Sequeira* explains that in a television broadcast environment, bandwidth is too limited for web content and client's associated with broadcast television are generally low-cost clients with limited processing power (CPUs) and limited memory. Thus, *Sequeira* provides a system in which a head-end device processes Internet content received and partitions the content, wherein each partition corresponds to a display (e.g., a television screen).

On the other hand, *Liu* is directed to Internet profiling, wherein Internet activity of users is tracked over time to develop a profile for each user that describes the interests of such user.

No motivation exists for one of ordinary skill in the art to look to these disparate reference teachings. That is, no motivation exists for one of ordinary skill in the art to look to the Internet profiling technique of *Liu* for a cache solution to be utilized in the system of *Sequeira*.

In response to the above arguments, the Final Office Action asserts on page 3 thereof that all referenced prior art are content delivery and content manipulation systems operating within a web based network environment, and thus maintains that they are analogous art. Of course, if one defines the category of a given art broadly enough, everything can fall within such category and be considered analogous. While the *Sequeira* and *Liu* may be directed to content delivery, the respective problems on which each reference focuses and their respective teachings are so disparate that one of ordinary skill in the art would not be motivated to look to their respective teachings, except if using impermissible hindsight to attempt to piece together the various elements claimed in the present application.

Appellant maintains that insufficient motivation is found here because the *Sequeira* and *Liu* references are non-analogous art that are each attempting to solve a different problem. No motivation exists for one of ordinary skill in the art to look to these disparate reference teachings. That is, no motivation exists for one of ordinary skill in the art to look to the Internet profiling technique of *Liu* for a cache solution to be utilized in the system of *Sequeira*.

Combination of *Carpentier* with *Sequeira* and *Liu*

Additionally, insufficient motivation exists for further combining *Carpentier* with *Sequeira* and *Liu* in the manner suggested by the Office Action.

The Office Action appears to suggest that *Sequeira* teaches a HTML source document that delimits content into various portions in that it describes, in a language understandable by the browser, the various elements (e.g., images, etc.) of the web page and an arrangement

of such elements (e.g., in which order to display the images, etc. in the web page). The HTML source code includes "tags" that identify the various elements (e.g., image files, etc.) that are to be presented on the web page. The web server also sends the elements (image files, etc.) to the client, and the browser executing on the client displays the elements in the arrangement dictated by the HTML source document.

The Office Action essentially relies upon a first reference, *Sequeira*, for teaching an HTML source document that has a plurality of elements of a web page. The Office Action further relies upon *Liu* as teaching that a document may be searched for in a memory cache. The Office Action finally relies upon *Carpentier* as teaching that an algorithm, such as MD5, can be used to generate a unique identifier for a file based on the file's content. As mentioned above, Appellant concedes that these disparate elements are known.

However, one of ordinary skill in the art would not be motivated to combine these disparate teachings in the manner applied by the Examiner absent the use of impermissible hindsight in which the present application is used as a blue print to piece the elements together in the manner claimed.

"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." M.P.E.P. §2143.01. Here, no such suggestion of the desirability of combining these disparate teachings in the manner applied by the Final Office Action is present in the prior art. Further, a "statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." *Id.* Again, in this case, while the Final Office Action finds 3 disparate teachings of certain individual aspects of the claimed invention, no objective suggestion as to the desirability of combining the references in the manner suggested is provided in the references.

For instance, neither *Sequeira* nor *Carpentier* teach or suggest generating IUIs for each of the various elements of a HTML source document that describes a web page. Likewise, *Liu* provides no such teaching or suggestion. Further, neither *Liu* nor *Carpentier*

teach or suggest using an IUI for performing a look up as recited by claim 1. Likewise, *Sequeira* provides no such teaching or suggestion. Again, absent impermissible hindsight, no desirability for combining the disparate teachings of the references in the manner suggested by the Final Office Action is provided in the prior art.

In view of the above, no motivation exists for making the applied combination, and thus the rejection of claims 1-5, 10, 14-16, and 20-21 under 35 U.S.C. § 103(a) should be overturned for this further reason.

Dependent Claim 8

Dependent claim 8 depends from claim 1, and thus inherits all of the limitations of claim 1 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 8 is allowable at least because of its dependence from claim 1 for the reasons discussed above.

Claim 8 further recites "wherein the source sends the identifier and waits for an indication from the destination before sending the associated portion of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 8. For instance, *Sequeira* fails to mention any such identifier. *Carpentier* merely mentions using an identifier (IUI) for encrypting a file, and does not teach or suggest sending an identifier to a destination and awaiting an indication from the destination before sending the associated content. While *Liu* mentions a cache subsystem, *Liu* fails to provide any teaching or suggestion of sending an identifier to a destination and awaiting an indication from the destination before sending the associated content. Thus, the applied combination fails to teach or suggest the further element of claim 8, and therefore the rejection of claim 8 should be overturned.

Dependent Claim 9

Dependent claim 9 depends from claim 1, and thus inherits all of the limitations of claim 1 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 9 is allowable at least because of its dependence from claim 1 for the reasons discussed above.

Claim 9 further recites "wherein the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 9. For instance, *Sequeira* fails to mention any such identifier. *Carpentier* merely mentions using an identifier (IUI) for encrypting a file, and does not teach or suggest sending an identifier to a destination and interrupting the sending of the associated content if the identifier is found at the destination. While *Liu* mentions a cache subsystem, *Liu* fails to provide any teaching or suggestion of sending an identifier to a destination and interrupting the sending of the associated content if the identifier is found at the destination. Thus, the applied combination fails to teach or suggest the further element of claim 9, and therefore the rejection of claim 9 should be overturned.

Dependent Claims 11-12

Dependent claim 11 depends from claim 1, and thus inherits all of the limitations of claim 1 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 11 is allowable at least because of its dependence from claim 1 for the reasons discussed above.

Claim 11 further recites "wherein the piece of content includes dynamic and static content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 11. For instance, the references fail to teach or suggest looking up an identifier for a piece of content that includes dynamic and static content, wherein if the identifier is found the piece of content is retrieved at the destination and if the identifier is not found the piece of content is received from the source (*see* claim 1 from which claim 11 depends). For instance, while *Liu* mentions a cache subsystem, *Liu* fails to teach or suggest using an identifier in the above manner for dynamic and static content. Indeed, *Liu* expressly teaches at col. 54, lines 29-48 that dynamic content may simply be marked as UNCACHEABLE, rather than using an identifier in the above manner for such dynamic content. Thus, the applied combination fails to teach or suggest the further element of claim 11, and therefore the rejection of claim 11 should be overturned. Further, claim 12 depends from claim 11, and thus the rejection of claim 12 should likewise be overturned.

Dependent Claim 13

Dependent claim 13 depends indirectly from claim 11, and thus inherits all of the limitations of claim 11 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 13 is allowable at least because of its dependence from claim 11 for the reasons discussed above.

Claim 13 further recites "wherein said one or more portions include at least one portion containing mixed or dynamic content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 13. For instance, the references fail to teach or suggest looking up an identifier for a piece of content that includes a portion containing mixed or dynamic content, wherein if the identifier is found the portion of content is retrieved at the destination and if the identifier is not found the portion of content is received from the source (*see* claim 1 from which claim 13 depends). For instance, while *Liu* mentions a cache subsystem, *Liu* fails to teach or suggest using an identifier in the above manner for a portion of mixed or dynamic content. Indeed, *Liu* expressly teaches at col. 54, lines 29-48 that dynamic content may simply be marked as UNCACHEABLE, rather than using an identifier in the above manner for such dynamic content. Thus, the applied combination fails to teach or suggest the further element of claim 13, and therefore the rejection of claim 13 should be overturned.

Dependent Claim 17

Dependent claim 17 depends from claim 1, and thus inherits all of the limitations of claim 1 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 17 is allowable at least because of its dependence from claim 1 for the reasons discussed above.

Claim 17 further recites "wherein said delimiting is performed by comparing the piece of content to another piece of content and determining which portions are common to both." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 17. Neither *Carpentier* nor *Liu* teach or suggest delimiting content. *Sequeira* mentions partitioning content of a web page into bit mapped images, but fails to teach or suggest performing the comparing step recited by claim 17. Thus, the applied

combination fails to teach or suggest the further element of claim 17, and therefore the rejection of claim 17 should be overturned.

Dependent Claim 18

Dependent claim 18 depends from claim 1, and thus inherits all of the limitations of claim 1 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 18 is allowable at least because of its dependence from claim 1 for the reasons discussed above.

Claim 18 further recites "wherein said delimiting is performed based on features contained within the piece of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 18. Neither *Carpentier* nor *Liu* teach or suggest delimiting content. *Sequeira* mentions partitioning content of a web page into bit mapped images, but fails to teach or suggest performing delimiting based on features contained within a piece of content as recited by claim 18. Thus, the applied combination fails to teach or suggest the further element of claim 18, and therefore the rejection of claim 18 should be overturned.

Dependent Claim 19

Dependent claim 19 depends from claim 18, and thus inherits all of the limitations of claim 18 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 19 is allowable at least because of its dependence from claim 18 for the reasons discussed above.

Claim 19 further recites "said features including white or blank space to be displayed." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 19. Neither *Carpentier* nor *Liu* teach or suggest delimiting content. *Sequeira* mentions partitioning content of a web page into bit mapped images, but fails to teach or suggest performing the delimiting based on white or blank space contained within the content to be displayed, as recited by claim 19. Thus, the applied combination fails to teach or suggest the further element of claim 19, and therefore the rejection of claim 19 should be overturned.

Independent Claim 22 and Dependent Claim 26

Independent claim 22 recites:

> An apparatus for delivery of content data comprising:
> a source having a plurality stored pieces of content, the source for receiving requests for content, delimiting the pieces of content into portions, computing identifiers from said portions of content, and assigning said identifiers to the respective portions of content from which said identifiers are computed; and
> a destination coupled to the source via a network, the destination for providing the requests for content, receiving the identifiers from the source in response to the requests and looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network. (Emphasis added).

1. Applied Combination Fails to Teach or Suggest All Elements of Claim 22

The applied combination of *Sequeira*, *Carpentier,* and *Liu* fails to teach or suggest all the above elements of claim 22. For instance, as discussed above with claim 1, the combination fails to teach or suggest "computing identifiers from said portions of content, and assigning said identifiers to the respective portions of content from which said identifiers are computed", as well as "looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network".

In view of the above, claim 22 is not obvious under 35 U.S.C. § 103(a) over the combination because the combination fails to teach or suggest all elements of claim 22. Therefore, Appellant respectfully requests that the Board overturn this rejection of claim 22.

Claim 26 depends from independent claim 22, and is thus likewise believed to be allowable at least based on its dependency from claim 22 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claim 26 also be overturned.

2. Lack of Motivation to Combine the Applied References

Further, as discussed above with claim 1, insufficient motivation exists for combining the disparate teachings of *Sequeira*, *Liu*, and *Carpentier* in the manner applied by the Final Office Action. Thus, the rejection of claims 22 and 26 under 35 U.S.C. § 103(a) should be overturned for this further reason.

Dependent Claim 27

Dependent claim 27 depends from claim 22, and thus inherits all of the limitations of claim 22 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 27 is allowable at least because of its dependence from claim 22 for the reasons discussed above.

Claim 27 further recites "wherein the source sends the identifier and waits for an indication from the destination before sending the associated portion of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 27. For instance, *Sequeira* fails to mention any such identifier. *Carpentier* merely mentions using an identifier (IUI) for encrypting a file, and does not teach or suggest sending an identifier to a destination and awaiting an indication from the destination before sending the associated content. While *Liu* mentions a cache subsystem, *Liu* fails to provide any teaching or suggestion of sending an identifier to a destination and awaiting an indication from the destination before sending the associated content. Thus, the applied combination fails to teach or suggest the further element of claim 27, and therefore the rejection of claim 27 should be overturned.

Dependent Claim 28

Dependent claim 28 depends from claim 22, and thus inherits all of the limitations of claim 22 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 28 is allowable at least because of its dependence from claim 22 for the reasons discussed above.

Claim 28 further recites "wherein the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts

sending of the associated portion of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 28. For instance, *Sequeira* fails to mention any such identifier. *Carpentier* merely mentions using an identifier (IUI) for encrypting a file, and does not teach or suggest sending an identifier to a destination and interrupting the sending of the associated content if the identifier is found at the destination. While *Liu* mentions a cache subsystem, *Liu* fails to provide any teaching or suggestion of sending an identifier to a destination and interrupting the sending of the associated content if the identifier is found at the destination. Thus, the applied combination fails to teach or suggest the further element of claim 28, and therefore the rejection of claim 28 should be overturned.

Dependent Claim 29

Dependent claim 29 depends from claim 22, and thus inherits all of the limitations of claim 22 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 29 is allowable at least because of its dependence from claim 22 for the reasons discussed above.

Claim 29 further recites "wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 29. For instance, *Carpentier* and *Liu* fail to mention delimiting portions of content at all. *Sequeira* partitions web pages into bit mapped images for display on a television, but fails to teach or suggest delimiting the portions of content into those which consist of static content and those which contain dynamic or mixed content. Thus, the applied combination fails to teach or suggest the further element of claim 29, and therefore the rejection of claim 29 should be overturned.

Dependent Claim 30

Dependent claim 30 depends from claim 29, and thus inherits all of the limitations of claim 29 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 30 is allowable at least because of its dependence from claim 29 for the reasons discussed above.

Claim 30 further recites "wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content to each other and determining which portions are common." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 30. For instance, *Carpentier* and *Liu* fail to mention delimiting portions of content at all. *Sequeira* partitions web pages into bit mapped images for display on a television, but fails to teach or suggest delimiting the portions of content into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content and determining which portions are common. Thus, the applied combination fails to teach or suggest the further element of claim 30, and therefore the rejection of claim 30 should be overturned.

Dependent Claim 31

Dependent claim 31 depends from claim 29, and thus inherits all of the limitations of claim 29 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 31 is allowable at least because of its dependence from claim 29 for the reasons discussed above.

Claim 31 further recites "wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content." The applied combination of *Sequeira*, *Carpentier*, and *Liu* fails to teach or suggest this further element of claim 31. For instance, *Carpentier* and *Liu* fail to mention delimiting portions of content at all. *Sequeira* partitions web pages into bit mapped images for display on a television, but fails to teach or suggest delimiting the portions of content into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content. Thus, the applied combination fails to teach or suggest the further element of claim 31, and therefore the rejection of claim 31 should be overturned.

Dependent Claims 36-37

Claims 36-37 depend from independent claim 32, and thus inherit all of the limitations of claim 32 in addition to their own supplied limitations. It is respectfully

submitted that dependent claims 36-37 are allowable at least because of its dependence from claim 32 for the reasons discussed further below.

B. Rejections Under 35 U.S.C. §103(a) over *Sequeira*, *Carpentier*, *Liu*, and *Marconcini*

Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of *Marconcini*. Claims 6 and 7 each depend either directly or indirectly from independent claim 1, and thus inherit all limitations of independent claim 1. As discussed above, Appellant respectfully submits that independent claim 1 is patentable over the rejection of record. *Marconcini* fails to correct the above-identified deficiencies in the rejection of claim 1. Thus, it is respectfully submitted that dependent claims 6-7 are allowable at least because of their dependency from independent claim 1 for the reasons discussed above. Therefore, Appellant requests that the Board overturn the rejection of claims 6-7.

C. Rejections Under 35 U.S.C. §103(a) over *Sequeira*, *Carpentier*, *Liu*, and *Grove*

Claims 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Carpentier* and in view of *Liu* and further in view of *Grove*. As discussed above, Appellant respectfully submits that independent claim 22 is patentable over the rejection of record. *Grove* fails to correct the above-identified deficiencies in the rejection of claim 22. Thus, it is respectfully submitted that dependent claims 23-25 are allowable at least because of their dependency from independent claim 22 for the reasons discussed above. Therefore, Appellant requests that the Board overturn the rejection of claims 23-25.

D. Rejections Under 35 U.S.C. §103(a) over *Sequeira* and *Liu*

Claims 32-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sequeira* in view of *Liu*. Appellant respectfully traverses these rejections below.

Independent Claim 32 and Dependent Claims 34-35

Independent claim 32 recites:

> A method for content delivery, comprising:
> requesting a piece of content;
> delimiting the piece of content into one or more portions at a source;
> associating an identifier with a selected one of the one or more portions of the content; and
> determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source. (Emphasis added).

1. Applied Combination Fails to Teach or Suggest All Elements of Claim 32

The applied combination of *Sequeira* and *Liu* fails to teach or suggest all the above elements of claim 32. For instance, the combination fails to teach or suggest "determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source", as discussed further below.

Neither *Sequeira* nor *Liu* teach or suggest determining whether to send selected one or more portions of content or an identifier to a destination based on information at the source. For instance, in certain embodiments of the present invention, tag table 112 may be maintained at source 114 for determining whether to send selected one or more portions of content or an identifier to a destination 116. In *Sequeira*, no such determination is made. Rather, a requested web page is sent from web server 104 to head-end 122, which then partitions the web page into display partitions and corresponding partition IDs. No determination is made at the source as to whether to send selected one or more portions of content or an identifier to a destination. Additionally, no portions or identifiers are described in *Liu*, and no such determination is made by *Liu's* system. Thus, the combination of *Sequeira* and *Liu* fails to teach or suggest this further element of claim 32.

In view of the above, claim 32 is not obvious under 35 U.S.C. § 103(a) over the combination of *Sequeira* and *Liu* because the combination fails to teach or suggest all elements of claim 32. Therefore, Appellant respectfully requests that the Board overturn this rejection of claim 32.

Claims 34-35 each depend from independent claim 32, and are thus likewise believed to be allowable at least based on their dependency from claim 32 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claims 34-35 also be overturned.

2. Lack of Motivation to Combine the Applied References

Further, as discussed above with claim 1, insufficient motivation exists for combining the *Sequeira* and *Liu* references in the manner applied by the Final Office Action. Thus, the rejection of claims 32 and 34-35 under 35 U.S.C. § 103(a) should be overturned for this further reason.

Dependent Claim 33

Dependent claim 33 depends from claim 32, and thus inherits all of the limitations of claim 32 in addition to its own supplied limitations. It is respectfully submitted that dependent claim 33 is allowable at least because of its dependence from claim 32 for the reasons discussed above.

Claim 33 further recites "said determining comprising looking up the identifier at the source and, if the identifier is not found at the source, the method further comprising sending the portion to the destination." As discussed above with claim 1, the combination of *Sequeira* and *Liu* fails to teach or suggest this further element, and thus Appellant respectfully requests that the Board overturn the rejection of claim 33.

Conclusion

In view of the above, Appellant requests that the board overturn the outstanding rejections of claims 1-37. Attached hereto are a Claims Appendix, Evidence Appendix, and Related Proceedings Appendix. As noted in the attached Evidence Appendix, no evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted. Also, as noted by the Related Proceedings Appendix, no related proceedings are referenced in II above, and thus no copies of decisions in related proceedings are provided.

The required fee for this response is enclosed. If any additional fee is due, please charge Deposit Account No. 80-2025, under order No. 10016145-1 from which the undersigned is authorized to draw.

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Date of Deposit: October 2, 2006

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VIII. CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 10/015,015

1. A method for content delivery, comprising:

requesting a piece of content;

delimiting the piece of content into one or more portions at a source;

associating an identifier with a selected one of the one or more portions of the content, said identifier computed from the selected one of the one or more portions of the content;

sending the identifier to a destination; and

looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source.

2. The method according to claim 1, wherein if the identifier is not found, the method further comprises storing the identifier and the associated portion of content at the destination.

3. The method according to claim 1, wherein the identifier and the associated portion of content are stored in a look-up table at the destination.

4. The method according to claim 3, wherein the look-up table memory comprises a content addressable memory (CAM).

5. The method according to claim 1, further comprising computing the identifier from data contents of the associated portion of content.

6. The method according to claim 5, wherein the identifier is an MD-5 hash value.

7. The method according to claim 6, wherein the identifier is an SHA-1 hash value.

8. The method according to claim 1, wherein the source sends the identifier and waits for an indication from the destination before sending the associated portion of content.

9. The method according to claim 1, wherein the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content.

10. The method according to claim 1, wherein the piece of content is a web page.

11. The method according to claim 1, wherein the piece of content includes dynamic and static content.

12. The method according to claim 11, wherein said one or more portions include at least one portion consisting of static content.

13. The method according to claim 12, wherein said one or more portions include at least one portion containing mixed or dynamic content.

14. The method according to claim 13, further comprising assigning a respective identifier to each portion consisting of static content, said respective identifier computed from the assigned portion.

15. The method according to claim 1, wherein said one or more portions are of fixed size.

16. The method according to claim 1, wherein said one or more portions are of variable size.

17. The method according to claim 1, wherein said delimiting is performed by comparing the piece of content to another piece of content and determining which portions are common to both.

18. The method according to claim 1, wherein said delimiting is performed based on features contained within the piece of content.

19. The method according to claim 18, said features including white or blank space to be displayed.

20. The method according to claim 1, further comprising assembling the piece of content at the destination from at least one portion retrieved at the destination and at least one portion received from the source.

21. The method according to claim 1, said sending being via a wide area network.

22. An apparatus for delivery of content data comprising:

a source having a plurality stored pieces of content, the source for receiving requests for content, delimiting the pieces of content into portions, computing identifiers from said portions of content, and assigning said identifiers to the respective portions of content from which said identifiers are computed; and

a destination coupled to the source via a network, the destination for providing the requests for content, receiving the identifiers from the source in response to the requests and looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the table, the destination receives the associated portion of content from the source via the network.

23. The apparatus according to claim 22, the source comprising a server and a far proxy, the server for storing the pieces of content and the far proxy for delimiting portions of the pieces of content.

24. The apparatus according to claim 23, wherein the server comprises a web server.

25. The apparatus according to claim 22, the destination comprising a recipient of content and a near proxy for looking up identifiers received from the source in the table.

26. The apparatus according to claim 22, wherein when the destination receives the associated portion of content from the source, the destination stores the identifier and the associated portion of content in the table.

27. The method according to claim 22, wherein the source sends the identifier and waits for an indication from the destination before sending the associated portion of content.

28. The method according to claim 22, wherein the source sends the identifier and the associated portion of content and, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content.

29. The method according to claim 22, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content.

30. The apparatus according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content to each other and determining which portions are common.

31. The method according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content.

32. A method for content delivery, comprising:

requesting a piece of content;

delimiting the piece of content into one or more portions at a source;

associating an identifier with a selected one of the one or more portions of the content; and

determining whether to send the selected one or more portions of content or the identifier to the destination based on information at the source.

33. The method according to claim 32, said determining comprising looking up the identifier at the source and, if the identifier is not found at the source, the method further comprising sending the portion to the destination.

34. The method according to claim 33, further comprising storing the identifier and the associated portion of the content in a look-up table at the destination.

35. The method according to claim 33, further comprising storing the identifier in a table at the source.

36. The method according to claim 32 further comprising:

computing said identifier from said selected one of the one or more portions of the content.

37. The method according to claim 36 wherein said computing comprises computing at least one selected from the group consisting of:

a checksum, hash, or other value that is determinative of said selected one of the one or more portions of the content.

IX. EVIDENCE APPENDIX

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS APPENDIX

No related proceedings are referenced in II above, and thus no copies of decisions in related proceedings are provided.